

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P475071

Luminaire Tested: **22CZ2-70VHE-RDP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475071
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-RDP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4760.8 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

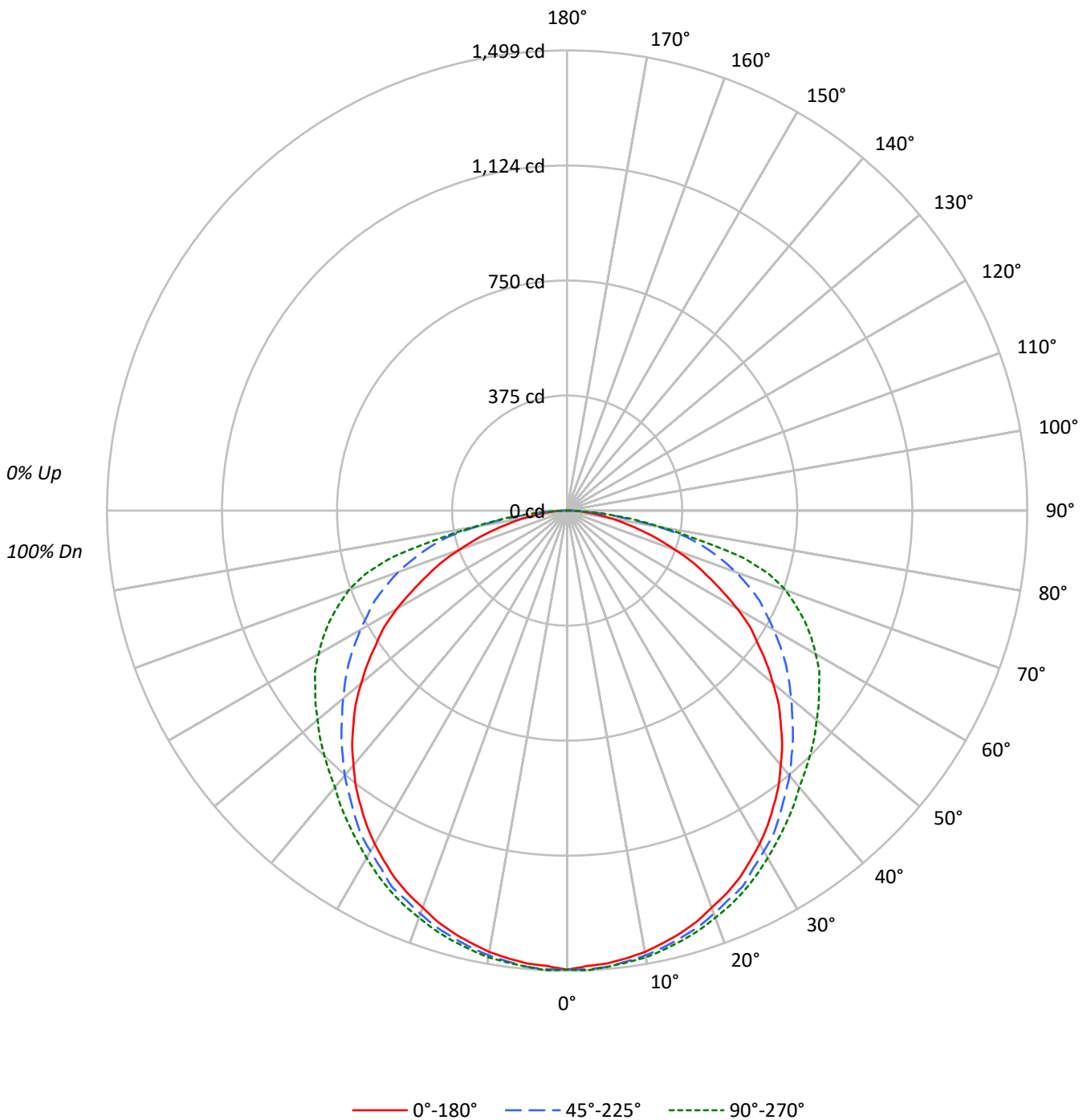
Input Watts (W): 49.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4024	4024	4024
5°	4002	4030	4030
10°	3990	4019	4039
15°	3971	4010	4039
20°	3942	4001	4042
25°	3931	4014	4056
30°	3896	3983	4059
35°	3854	3969	4085
40°	3802	3961	4133
45°	3745	3959	4265
50°	3666	3988	4442
55°	3566	4075	4699
60°	3450	4184	5033
65°	3211	4394	5442
70°	2949	4603	5953
75°	2587	4841	6155
80°	2227	4610	4832
85°	1945	3353	3674



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.5	3.0
10°-20°	406.1	8.5
20°-30°	619.7	13.0
30°-40°	756.6	15.9
40°-50°	809.0	17.0
50°-60°	780.9	16.4
60°-70°	672.2	14.1
70°-80°	454.8	9.6
80°-90°	120.0	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1167.3	24.5
0°-40°	1923.9	40.4
0°-60°	3513.8	73.8
0°-90°	4760.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4760.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1495	1495	1495	1495	1495	
5°	1481	1485	1492	1492	1492	141
15°	1425	1429	1439	1446	1450	402
25°	1324	1331	1352	1359	1366	609
35°	1173	1184	1208	1233	1243	734
45°	984	1002	1040	1093	1121	760
55°	760	784	869	956	1002	681
65°	504	553	690	798	855	502
75°	249	329	466	560	592	267
85°	63	88	109	112	119	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.4	1495.4	1495.4	1495.4	1495.4
2.5°	1484.9	1488.4	1495.4	1495.4	1498.8
5°	1481.4	1484.9	1491.9	1491.9	1491.9
7.5°	1471.0	1474.5	1481.4	1484.9	1484.9
10°	1460.2	1464.0	1471.0	1474.5	1478.0
12.5°	1442.8	1446.3	1456.7	1464.0	1464.0
15°	1425.4	1428.9	1439.3	1446.3	1449.8
17.5°	1404.2	1411.5	1421.9	1428.9	1432.4
20°	1376.4	1383.3	1397.2	1408.0	1411.5
22.5°	1352.0	1359.0	1372.9	1383.3	1390.3
25°	1323.8	1330.8	1352.0	1359.0	1365.9
27.5°	1288.7	1296.0	1313.4	1327.3	1337.7
30°	1253.9	1260.8	1281.7	1299.4	1306.4
32.5°	1215.2	1225.7	1250.4	1264.3	1274.7
35°	1173.1	1183.6	1208.3	1232.6	1243.4
37.5°	1131.4	1141.8	1166.2	1197.8	1211.7
40°	1082.3	1096.2	1127.5	1169.6	1176.6
42.5°	1036.7	1054.1	1082.3	1131.4	1148.8
45°	984.2	1001.6	1040.2	1092.7	1120.6
47.5°	935.1	952.5	994.6	1057.6	1092.7
50°	875.6	899.9	952.5	1026.3	1061.1
52.5°	819.5	840.4	910.7	991.1	1033.2
55°	760.0	784.4	868.6	956.0	1001.6
57.5°	707.5	728.4	823.0	921.2	973.7
60°	641.0	668.9	777.4	882.5	935.1
62.5°	570.7	612.8	731.8	840.4	896.5
65°	504.3	553.3	690.1	798.3	854.7
67.5°	444.7	497.3	637.5	753.1	805.6
70°	374.8	441.3	585.0	697.0	756.6
72.5°	311.8	385.2	525.5	637.5	690.1
75°	248.8	329.2	465.6	560.3	592.0
77.5°	192.4	269.7	399.2	427.3	430.8
80°	143.7	213.7	297.5	301.0	311.8
82.5°	98.1	150.7	192.4	210.2	213.7
85°	63.0	87.7	108.6	112.1	119.0
87.5°	28.2	31.7	38.6	35.1	35.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)